## **ABSTRACT**

Methods of inhibiting osteoclastogenesis and the activity of osteoclasts are disclosed. Methods of treating patients who have diseases characterized bone loss are disclosed. According to the methods, an amount of a TRANCE/RANK inhibitor effective to inhibit osteoclastogenesis is administered to the patient. Pharmaceutical compositions which comprise TRANCE/RANK inhibitor in an amount effective to inhibit osteoclastogenesis. Methods of modulating dendritic cell maturation, T cell proliferation, and/or CD40 receptor systems in an individual are disclosed. The methods comprise the step of administering to the individual an amount of a TRANCE/RANK inhibitor effective to modulating dendritic cell maturation, T cell proliferation, and/or CD40 receptor systems.